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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,874	08/20/2003	Trent Shidaker	038267-0305623	5201

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EXAMINER	
SERGENT, RABON A	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/643,874	SHIDAKER ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/10/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. It is requested that applicants amend the continuing data within the specification to reflect the current status of the parent application.

2. A new abstract that is more descriptive of the invention is required. The use of an acidified polyisocyanate is central to applicants' invention, yet the abstract makes no mention of this feature.

3. Claim 58 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within step B), it is unclear what constitutes "conditions suitable for the formation of an acidified isocyanate group containing prepolymer".

4. Claims 37-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I Isocyanates produced from the phosgenation of amines inherently contain hydrogen chloride; therefore, it is unclear how applicants' claimed isocyanate differs from isocyanates produced from the well known methods of producing of isocyanates that inherently contain an acidifying agent as a result of their production.

5. Claims 37-46 and 48-58 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for processes wherein the polyisocyanate has been treated with an acid so as to achieve an acid concentration of at least 100 ppm, does not reasonably

provide enablement for processes wherein the acid concentration of the polyisocyanate is below 100 ppm. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Applicants have failed to provide adequate enablement for the production of the rebounded foams having beneficial processing characteristics using polyisocyanates having acid concentrations of below 100 ppm.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 37, 38, and 48-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis et al. ('246) or Ward et al. (''623 or '981).

Patentees disclose the production of rebounded foam, wherein foam crumb is bonded with a polyurethane prepolymer in the presence of steam. Patentees further disclose the use of

boric acid as a flame retardant. See abstracts within Ward et al. See Examples 12-16 within Davis et al. The position is taken that the presence of the boric acid component in combination with the prepolymer yields applicants' claimed acidified isocyanate component.

8. Claims 37-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. ('703) in view of Lee et al. ('793) or Laqua et al. ('317) or Cenker et al. ('288) or EP 856551 or Oertel (pages 8, 96, and 97).

Blair et al. disclose the production of rebonded foam, wherein foam particles are bonded using an isocyanate based binder. See abstract and columns 1 and 2.

9. Though Blair et al. fail to disclose the use of an acid to acidify the isocyanate, the position is taken that the use of acid compounds to stabilize and inhibit the reactivity of isocyanates was known at the time of invention. The secondary references are replete with teachings demonstrating the use of acid compounds for such purposes. Blair et al. themselves disclose that weak acids may be used as inhibitors within the production of the foam to be used as crumb. See column 8, line 51. Therefore, the position is taken that it would have been obvious to acidify the isocyanate binder component by incorporating an acid compound within the composition, so as to tailor the reactivity of the isocyanates and the potlife or workability of the binder compositions. It has been held that the use of a known compound for its known function is *prima facie* obvious. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent
December 12, 2004